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## Preparing for The New Impairment Requirements: Practitioner's View

BY CHRISTIAN HENKEL AND EMIL LOPEZ

This article describes the new standards set forth by the FASB. It covers the history of the ALLL and explains how the recent financial crisis highlighted the need for new standards. It also suggests how banks should align with the new CECL impairment standards, including early preparation and core capabilities.

### Overview

An appropriate allowance for loan and lease losses ("ALLL") covers estimated credit losses inherent in an institution's loan and lease portfolio. The ALLL represents management's best estimate of likely net charge-offs that are to be realized for a loan or group of loans, given facts and circumstances as of the evaluation date.<sup>1</sup>

On April 27, 2016, the Financial Accounting Standards Board (FASB) voted to move forward with a new credit impairment model, known as the Current Expected Credit Loss model (CECL), for the recognition and measurement of credit losses for loans and debt securities. The final standard is to be expected to be released in June 2016 with implementation beginning in 2018. This new standard is far more than an exercise in financial accounting and bank regulation. It will replace the current incurred loss model with an expected loss model, one of the most significant changes in the history of bank accounting.

In many cases, the ALLL does little to show the true extent of the credit risk inherent in a bank's loan portfolio. That is among the most commonly cited criticisms of the existing rules.

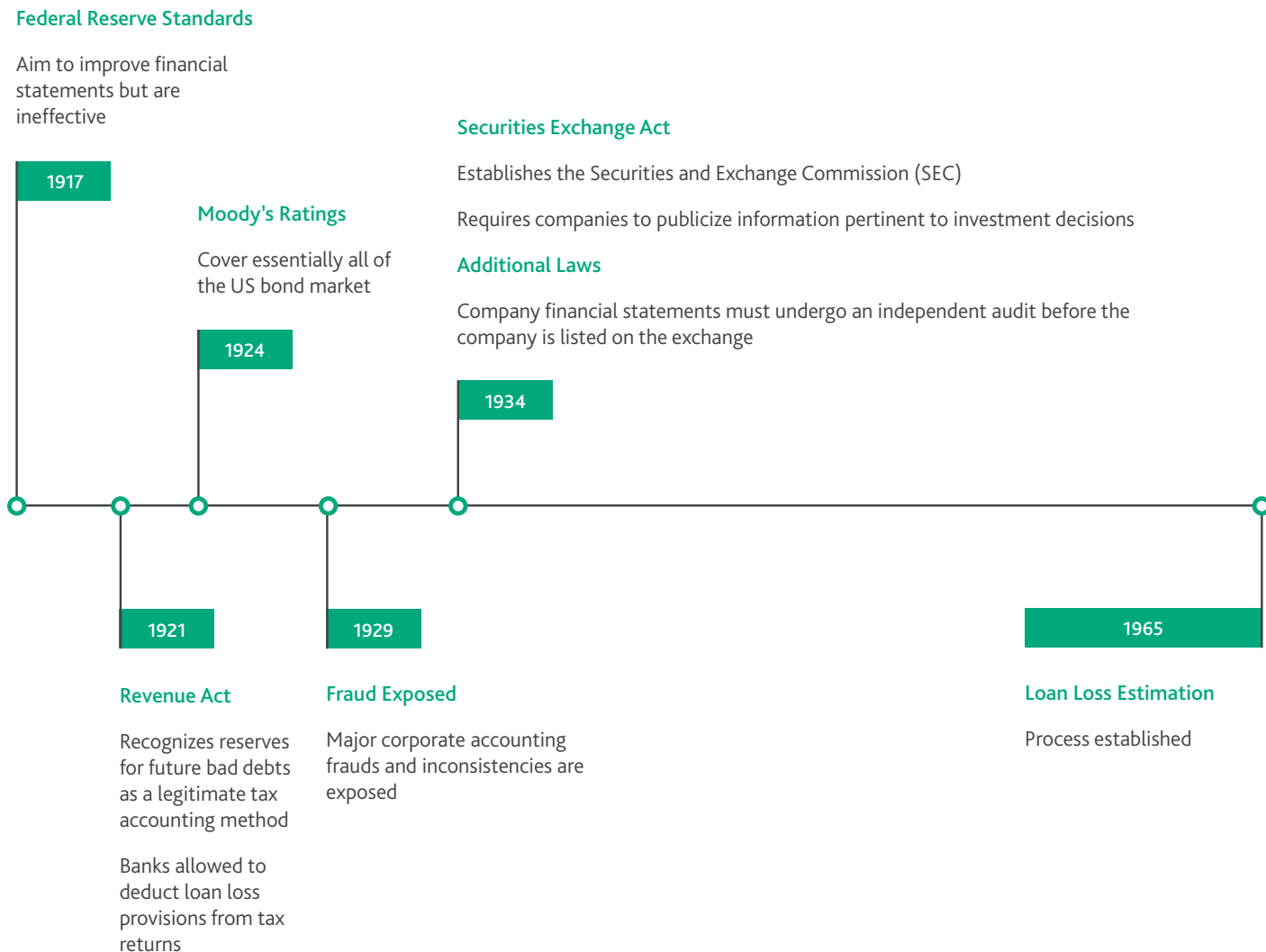
### Understanding the Existing Guidance

Setting aside reserves for future bad debts is a concept with a long history, as shown in Figure 1. The reserve for bad debts became a legitimate tax accounting method with the Revenue Act of 1921. Nearly a century later, regulators continue to fine-tune processes for estimating losses and adequate provisions.

Most recently, in 2006, the banking supervisory agencies issued a policy statement on the ALLL which remains in place today. Its primary objectives were to incorporate allowance-related

<sup>1</sup> *Interagency Policy Statement on the Allowance for Loan and Lease Losses*, Federal Reserve, December 2006.

Figure 1 History of the loan loss reserves in the US



Source: Moody's Analytics

developments since earlier policy statements and to ensure consistency with Generally Accepted Accounting Principles (GAAP). It also expanded the scope of coverage to credit unions.

While the 2006 policy statement is the most comprehensive guidance to date – helping to establish rules and governance and to bring together supervisory entities – it was left with significant deficiencies that the Great Recession would soon reveal.

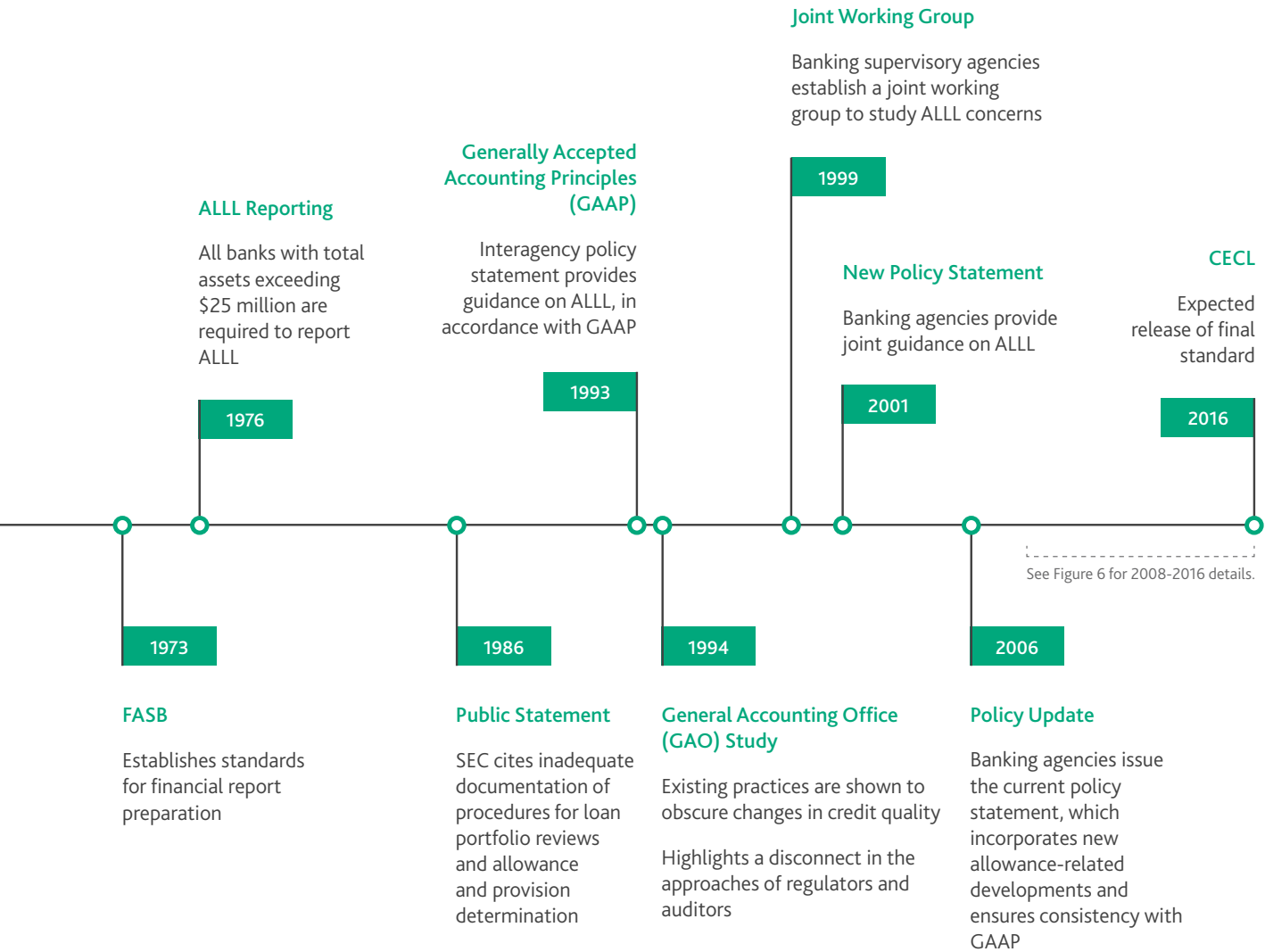
It is important to first understand how the existing guidance is applied in practice. There are approximately 6,000 banks in the US (far fewer if you consider that more than three-fourths are part of a bank holding company, or BHC), and they are all required to report their allowance in the same way and under the same rules.

As we'll discuss later, how they derive at the allowance estimate will differ considerably.

To help illustrate the point, Figures 2, 3, and 4 show excerpts from an annual report of a \$25 billion commercial bank.

For commercial banks, loans and leases comprise the majority of their assets, and the ALLL is the most significant estimate on their balance sheets. Commercial banks make loans to businesses and individuals with the money they raise through issuing deposits and other borrowings, with the objective of getting fully repaid on both the principal and interest on the loan. However, some borrowers inevitably default on their loans, which often results in the bank having to charge off all or a portion of the debt. On average, the

**Figure 1** History of the loan loss reserves in the US



Source: Moody's Analytics

net charge-off (NCO, which is gross charge-offs less recoveries) rate is about 1%.<sup>2</sup>

In this example, the bank set aside \$175 million in reserves to account for management's best estimate of the NCOs that are likely to be realized from its \$15 billion in loans outstanding, given the facts and circumstances as of the evaluation date (December 31, 2015). At the end of the prior reporting period, the bank held \$159 million in reserves in anticipation of future charge-offs. The amount of the allowance is increased or decreased through the combination of NCOs and the provision expense through the operating income.

In this case, the bank reported NCOs during fiscal year 2015 of \$33.6 million (\$43.6 million gross charge-offs and \$10.0 million in recoveries) and a provision expense of \$49.3 million to arrive at the \$175 million allowance. Said another way, the NCOs during 2015 reduced the bank's ALLL by \$33.6 million, but the bank had to expense through the income statement another \$49.3 million in order to ensure the amount of the allowance remained adequate (i.e., \$175 million) for future charge-offs based upon the facts and circumstances at the end of 2015 (Figure 3).

As depicted in the income statement in Figure 4, the bank reported net interest income during 2015 of \$665 million but

<sup>2</sup> Average annualized quarterly NCO rate for all loans and leases 1984–2015 is 0.91%; FDIC.

Figure 2 Balance sheet (assets only)

Assets	December 31,	
	2015	2014
Cash and due from banks	\$ 251,258	\$ 261,544
Interest-bearing deposits	155,907	132,695
Securities available-for-sale, at fair value	2,984,631	2,793,873
Securities held-to-maturity (fair value of \$3,961,534 and \$3,948,706)	3,923,052	3,872,955
Federal Home Loan Bank and Federal Reserve Bank stock	188,347	193,290
Loans held for sale	37,091	67,952
Loans and leases	15,671,735	13,900,025
Allowance for loan and lease losses	(174,990)	(159,264)
Loans and leases, net	15,496,745	13,740,761
Deferred tax asset, net	101,578	73,873
Premises and equipment, net	129,426	121,933
Goodwill	538,373	529,887
Other intangible assets, net	39,326	2,666
Cash surrender value of life insurance policies	503,093	440,073
Accrued interest receivable and other assets	328,993	301,670
Total assets	\$ 24,677,820	\$ 22,533,172

The ALLL is a contra-asset that reduces the carrying value of total loans

Source: Webster Financial Corporation

Figure 3 Changes in the ALLL during fiscal year 2015

(In thousands)

Allowance for loan and lease losses:	Total
Balance at January 1, 2015	\$ 159,264
Provision (benefit) charged to expense	49,300
Losses charged off	43,560
Recoveries	9,986
Balance at December 31, 2015	\$ 174,990

Source: Webster Financial Corporation

the \$49 million provision to increase the ALLL reduced operating income and, in turn, capital.

The concept of the ALLL and its presentation on an institution's balance sheet is straightforward, but in many cases it does little to inform investors and other interested parties about the true extent of the credit risk inherent in a bank's loan portfolio. This is among the most commonly cited criticisms of the existing rules.

Let's take a closer look.

The principal sources of guidance on accounting for impairment in a loan portfolio under US GAAP are as follows:

- » ASC 450-20, Loss Contingencies (formerly known as FAS 5)
- » ASC 310-10, Receivables (formerly known as FAS 114)

In simple terms, ASC 450-20 (FAS 5) is the reserve that institutions calculate for performing loans. Since these borrowers have not defaulted, the amount of potential loss is unknown, so

Figure 4 Income statement

(In thousands, except per share data)	Years ended December 31,	
	2015	2014
Interest Income:		
Interest and fees on loans and leases	\$ 552,441	\$ 511,612
Taxable interest and dividends on securities	190,061	189,408
Non-taxable interest on securities	15,948	17,064
Loans held for sale	1,590	857
<b>Total interest income</b>	<b>760,040</b>	<b>718,941</b>
Interest Expense:		
Deposits	46,031	44,162
Securities sold under agreements to repurchase and other borrowings	16,861	19,388
Federal Home Loan Bank advances	22,858	16,909
Long-term debt	9,665	10,041
<b>Total interest expense</b>	<b>95,415</b>	<b>90,500</b>
<b>Net interest income</b>	<b>664,625</b>	<b>628,441</b>
Provision for loan and lease losses	49,300	37,250
<b>Net interest income after provision for loan and lease losses</b>	<b>615,325</b>	<b>591,191</b>
Non-interest Income:		
Deposit service fees	136,578	103,431
Loan and lease related fees	25,594	23,212
Wealth and investment services	32,486 34	946 34,771
Mortgage banking activities	7,795	4,070
Increase in cash surrender value of life insurance policies	13,020	13,178
Gain on sale of investment securities, net,	609	5,499
Impairment loss on securities recognized in earnings	(110)	(1,145)
Other income	23,573	18,917
<b>Total non-interest income</b>	<b>239,545</b>	<b>202,108</b>
Non-interest Expense:		
Compensation and benefits	297,517	270,151
Occupancy	48,836	47,325
Technology and equipment	80,026	61,993
Intangible assets amortization	6,340	2,685
Marketing	16,053	15,379
Professional and outside services	11,156	8,296
Deposit insurance	24,042	22,670
Other expense	70,584	73,101
<b>Total non-interest expense</b>	<b>554,554</b>	<b>501,600</b>
Income before income tax expense	300,316	291,699
Income tax expense	93,976	91,973
<b>Net income</b>	<b>206,340</b>	<b>199,726</b>

Source: Webster Financial Corporation

it is usually estimated on a “pool” basis rather than an individual basis. That is, the assets are grouped into relatively homogenous groups of risk characteristics. This segmentation approach is similar to the approach bank management might take when

In the words of Comptroller of the Currency John Dugan in 2009: *“When the [down]turn finally did come, and the tidal wave of losses began hitting shore, banks have had to recognize losses through a sudden series of increased provisions to the loan loss reserve,*

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A critical component of the existing guidance is the distinction between accrual versus disclosure. As subtle as it may seem, this is perhaps the most significant justification for a new impairment model.

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determining the appropriate risk rating methodology or model for a specific portfolio. To perform this grouping, the portfolio of borrowers is stratified by characteristics such as sector, size, geography, and loan type before determining the best metrics for estimating future credit risk. Under the existing guidance, a widely used method is applying a historical NCO rate to each group, adjusted for the effects of qualitative or environmental factors.

ASC 310-10 (FAS 114) is the reserve that institutions calculate for non-performing or “impaired” loans. Although the impairment designation is institution-specific, a general rule is that a loan is impaired when the institution believes repayment of the loan will not be realized. According to the current guidance, the allowance is estimated using one of the following three impairment measurement methods:

1. The present value of expected future cash flows
2. The loan's observable market price
3. The fair value of the collateral if the loan is collateral-dependent (repayment solely based on collateral)

An institution may choose the appropriate impairment measurement method on a pool or loan-by-loan basis for an individually impaired loan, except for a collateral-dependent loan.<sup>3</sup>

Aside from the fact that these rules are inherently complex, with several impairment models, another critical component of the existing guidance is the distinction between accrual versus disclosure. As subtle as it may seem, this is perhaps the most significant justification for a new impairment model. According to the rule, an allowance should be recorded in the financial statements if it is “probable” that a loss will incur and the amount can be reasonably estimated. Otherwise it should be disclosed in the notes, or omitted altogether. In practice, this incurred loss model delays recognition of loss by only considering past events and current conditions.

*which in turn has more than offset earnings and eaten into precious capital. Stated differently, rather than being counter-cyclical, loan loss provisioning has become decidedly pro-cyclical, magnifying the impact of the downturn.”<sup>4</sup>*

### Post-Crisis Era and Why the Requirements Are Changing

While many institutions had been interpreting the existing guidance more broadly and increasing reserves proactively as problems arose, it is hard to argue that the incurred loss model was working as intended.

Figure 5 shows a 30-year time series of two important financial ratios used when analyzing asset quality. The bars in the chart, whose values are associated with the left vertical axis, show the trend in the amount of reserves held by the industry relative to the amount of outstanding loans. The quarterly average is 1.84%, which means that for every \$100 in loans, the industry was setting aside just under \$2 in reserves. During the financial crisis and in its wake, the industry began rapidly setting aside reserves in anticipation of greater future loan losses.

Now look at the line in the chart, whose values are associated with the right vertical axis. On average, the average ratio of reserves to noncurrent loans (defined as loans that are 90 days or more past due or placed on nonaccrual status by the bank) has been 100.16%, indicating that for every \$100 of problem loans the industry has set aside \$100 in reserves. While it is debatable whether banks should be reserving for the full amount of defaulted loans (loss given default is generally less than 100%), the trend in the two ratios leading into and through the Great Recession highlights a major problem.

In the fourth quarter of 2009, the ratio of reserves to total loans rose to more than 3%, nearly tripling in just two years. In order for the industry to maintain an allowance that was believed to be adequate for future loan losses, banks had to record \$583 billion in provision expenses from 2008 to 2010.<sup>5</sup> As a direct

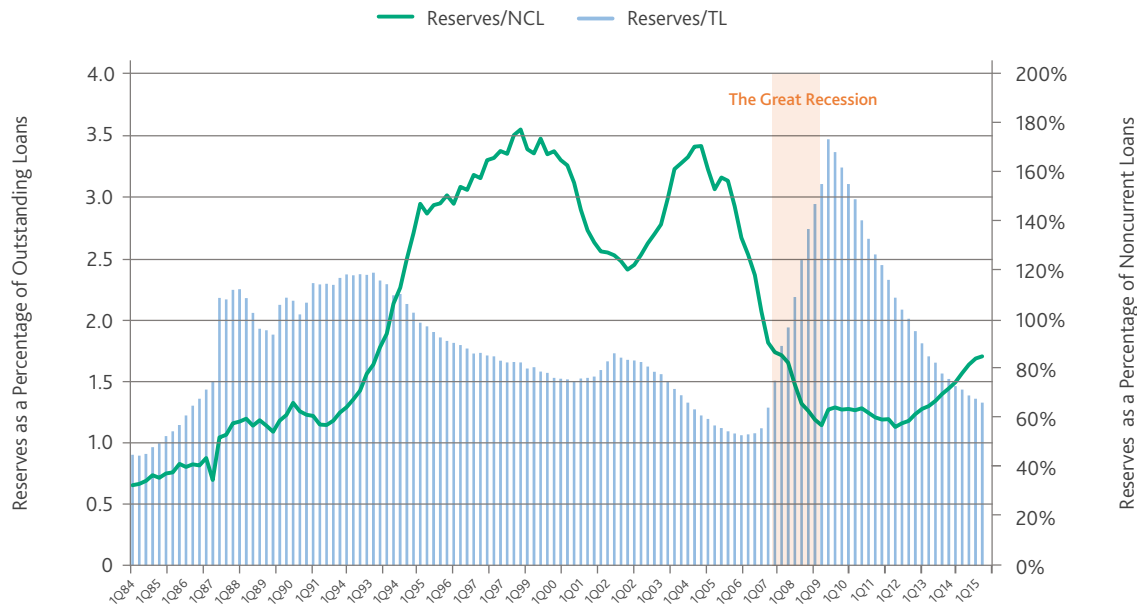
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<sup>3</sup> *Interagency Policy Statement on the Allowance for Loan and Lease Losses*, Federal Reserve, December 2006..

<sup>4</sup> *Comptroller Dugan Urges Less Pro-Cyclical Approach to Reserves*, Office of the Comptroller of the Currency, March 2009.

<sup>5</sup> FDIC Quarterly Banking Profile (all insured institutions).

Figure 5 Ratio of reserves to total loans and reserves to noncurrent loans (1985–2015)



Source: FDIC

impact on earnings and capital, this put many institutions in capital preservation mode, which made financing less available for businesses and individuals at a time when they needed it most, exacerbating the downturn.

Although the industry was increasing the allowance at record pace, it could not keep up with the pace of rising problem loans. The coverage ratio fell to a level not seen since the savings and loan crisis in the late 1980s and early 1990s. Despite the costly rapid provisioning to boost the ALLL, the ratio of reserves to noncurrent loans fell below 60%, underlining one of the primary limitations of the incurred loss model.

### A New Impairment Model Is Born

In October 2008, in the midst of the financial crisis, the FASB and International Accounting Standards Board (IASB) began a joint effort to address reporting issues arising from the global financial crisis. As part of that commitment, the Financial Crisis Advisory Group (FCAG) was formed to advise the accounting boards of the accounting issues emerging from the crisis, along with recommendations for potential changes to the global regulatory environment.

The July 2009 report issued by the FCAG contained several recommendations, including the need to explore alternatives

to the incurred loss model for loan loss provisioning that use more forward-looking information. These alternatives include an expected loss model and a fair value model.

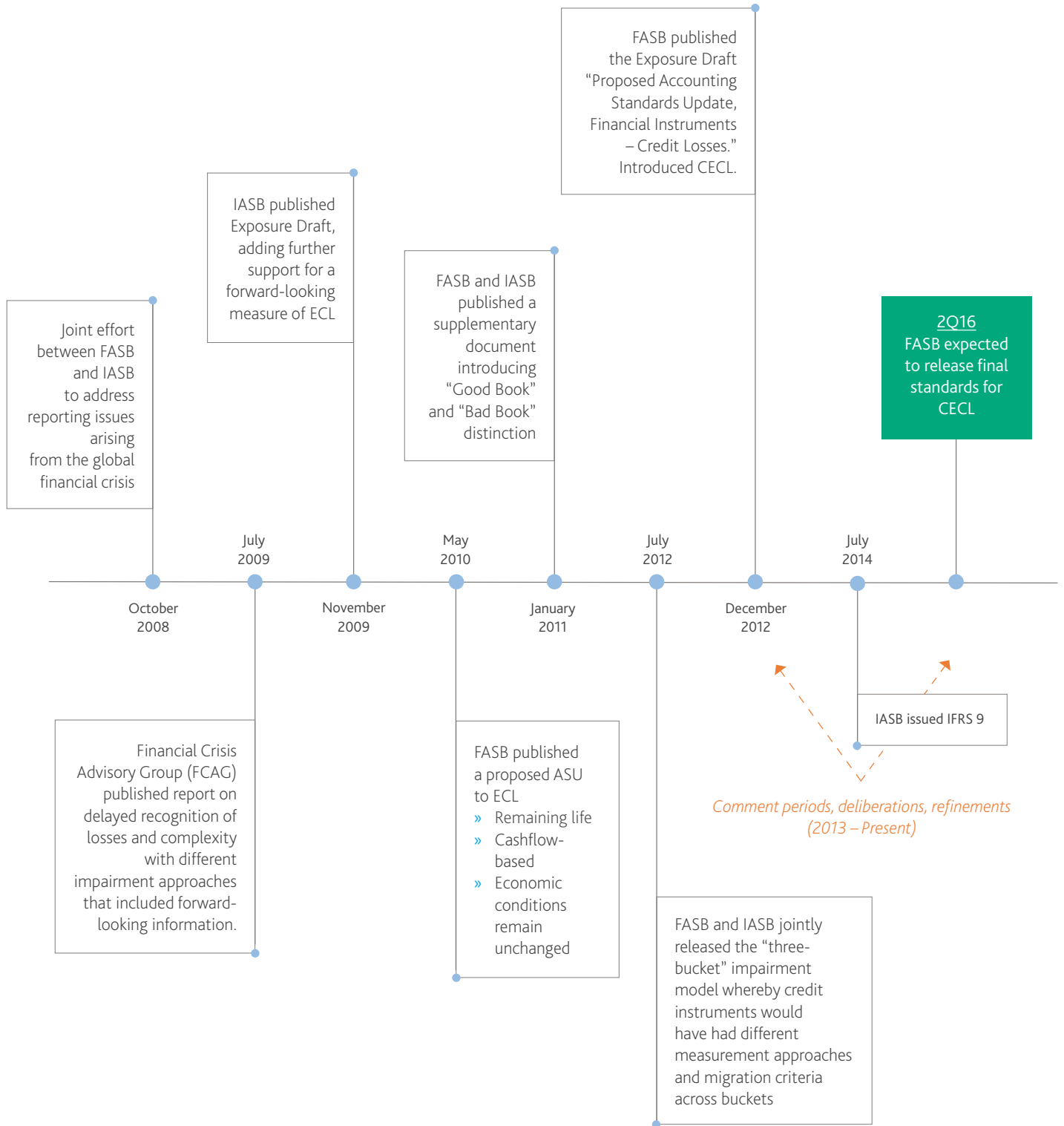
While an objective of the joint advisory group was convergence in accounting standards, the FASB and IASB decided to go in different directions. In December 2012, FASB introduced its proposed accounting standards update,<sup>6</sup> known as the Current Expected Credit Loss model (CECL). In July 2014, the IASB released its final impairment rules, known as IFRS 9. The FASB is expected to release its final standard in June 2016. Figure 6 shows the timeline of key events.

While the two boards did achieve convergence on a number of issues raised by the FCAG, there are two significant distinctions worth noting:

- » Impairment under IFRS 9 begins with a classification stage to determine how financial assets and liabilities are measured. The classification is driven by the cash flow characteristics and business model in which an asset is held, but measurement ultimately ends up in a single impairment model being applied to all financial instruments. While FASB's proposal includes a single impairment model, it does not include a classification stage.

<sup>6</sup> *Financial Instruments – Credit Losses (Subtopic 825-15)*, Accounting Standards Update, FASB, December 2015.

**Figure 6** Timeline of key events leading to a new impairment model



Source: FASB



- » Under IFRS 9, full lifetime expected losses are to be measured only if credit risk has increased significantly since initial recognition. Otherwise, the impairment measurement period is limited to twelve months from initial recognition. FASB's proposed model requires a life-of-loan forecast of credit losses to be recorded at origination, regardless of credit quality.

Since the release of the FASB's accounting standards update more than three years ago, there have been comment periods, deliberations and re-deliberations, and strong industry feedback.

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The goal of CECL is to improve the process by which institutions measure credit risk, to the benefit of third parties and the institutions themselves.

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The FASB has met with countless stakeholders – bankers, regulators, auditors, solution providers, the SEC, the Public Company Accounting Oversight Board (PCAOB), and members of the investing community. As we draw closer to the soon-to-be-final standard, the FASB has released several key decisions to date, including the following:<sup>7</sup>

- » An entity should apply the CECL model for financial assets measured at amortized cost, such as loans, debt securities, trade receivables, lease receivables, and any other receivables that represent the contractual right to receive cash.
- » An entity should consider available information relevant to assessing the collectability of contractual cash flows, including information about past events, current conditions, and reasonable and supportable forecasts.
- » An entity should consider all contractual cash flows over the life of the related financial assets (life of loan).
- » An entity's estimate of expected credit losses should always reflect the risk of loss, even when that risk is remote.
- » Methods to estimate expected credit losses may include the following: discounted cash flow, loss rates, probability of default (PD), or a provision matrix using loss factors.
- » FASB is expected to issue CECL in June 2016, which will be effective for SEC registrants' 2020 financial statements and in 2021 for banks that are not SEC registrants. Early adoption will be permitted for all organizations for fiscal years beginning after December 15, 2018.

Under CECL, an institution will be required to impair (reflected as an allowance for expected credit losses) its existing financial assets

based on an estimate of the present value of the contractual cash flows not expected to be collected at the reporting date. Not only will this remove the "probable" threshold in the current approach, but it will also broaden the range of information to be considered when estimating the allowance.

The following paragraphs illustrate some of the key changes CECL may bring. There will not be a "one size fits all" approach when it comes to implementation, a common misconception. The rules to comply and the presentation of an entity's financial statements

will largely be the same from one institution to the next, but how they arrive at an estimate of expected credit losses will depend on factors unique to the size and complexity of the institution's portfolio.

#### Measuring Expected Credit Loss

It is clear that the goal of CECL is to improve the process by which institutions measure credit risk, to the benefit of third parties and the institutions themselves.

The measurement of expected credit loss often starts with a look to the past as a predictor of future performance. By grouping financial assets into pools of similar risk characteristics, an institution can look to its historical experience or the experience of a suitable benchmark for those assets. Although no two credit cycles are the same, reasonable inferences about the future can be made from information from the past. In fact, that's the fundamental assumption in the current allowance process and in most credit risk rating models.

CECL will not prescribe a specific methodology to be used for measuring expected credit losses, but a logical approach toward compliance would be one that starts with an institution's current risk rating practices, to the extent they are effective at both differentiating the credit risk of borrowers within a portfolio and producing a reliable financial measure of credit risk. That is a limitation with which many institutions struggle. For example, if 80% of the loans in a relatively diverse commercial loan portfolio share a similar rating, then it may be necessary for management to revisit the effectiveness of its risk measurement process and capabilities. The same recommendation would apply if the output of the ratings is not calibrated to a specific risk measure such as a PD or expected loss (EL).

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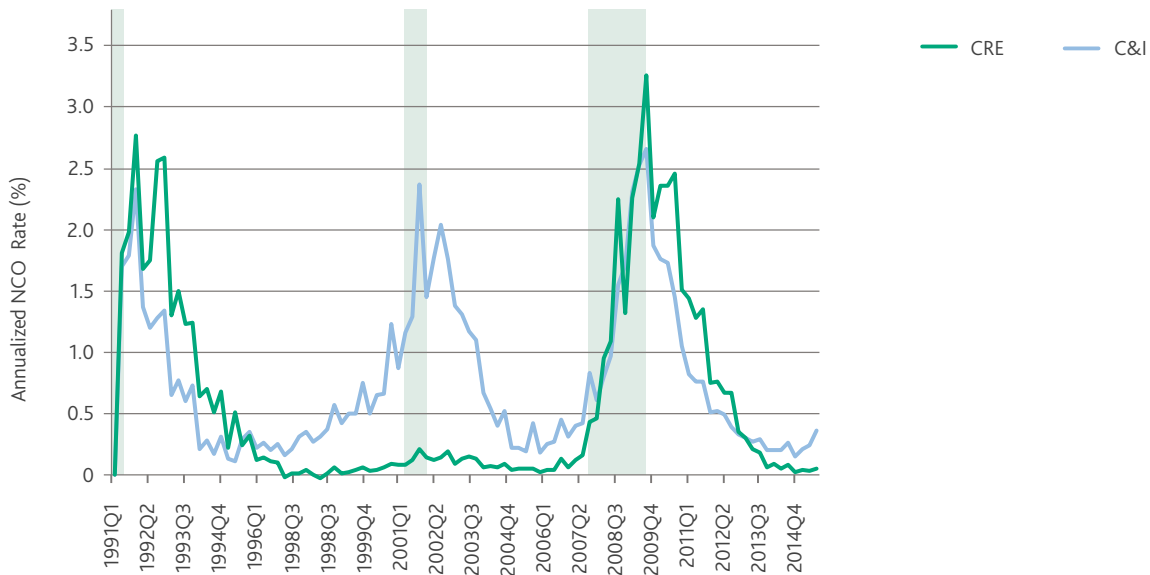
<sup>7</sup> FASB (as of March 23, 2016).

Over the last decade, many regional banks and larger community banks have sought to improve their risk rating practices by making their internal ratings much less subjective. A common approach has been a bifurcation of credit risk whereby borrowers are rated on their likelihood of default (i.e., PD), and credit facilities are rated on the severity of loss should default occur (i.e., LGD).

face a funding crisis with rippling effects cascading throughout the broader economy.

Taking a longer view, we can see how current conditions in a given cycle can have a profound impact on an institution's credit losses. As depicted in Figure 7, the average annualized quarterly NCO rate for Commercial and Industrial (C&I) loans over the last

**Figure 7** Quarterly (annualized) charge-off rates: C&I and CRE loans (1985–2015)



Source: Federal Reserve

Through accurate risk measures, an institution can derive an estimate of EL that could be used not only for managing risk, but also as a foundation for CECL compliance.

### Incorporating Current Conditions

Using historical averages as a basis for deriving forecasts of credit quality is an approach widely accepted in the banking industry. While such a through-the-cycle view has its merits, it loses effectiveness when historical experience differs from prevailing and near-term conditions.

Take the energy sector as a very recent and relevant example. With oil prices continuing to hover around \$40 per barrel as of March 2016 (compared to roughly \$100 per barrel only two years ago),<sup>8</sup> many energy companies are defaulting or nearing default on their loans. At the same time, to hedge future credit losses, lenders are curtailing lending and seeking to reduce exposure as they ramp up reserves. If oil prices continue to remain at a level not seen since the height of the financial crisis, the \$3 trillion sector could soon

25 years is 0.77%, but it climbed to approximately 2.50% during the recession of 2001 and during the recent financial crisis. The impact of the credit environment is even more pronounced with Commercial Real Estate (CRE) loans. While the average NCO rate for the same period is 0.62%, the median is only 0.14%, indicating that loans secured by CRE are usually a safe and low-risk investment. That is, until the cycle shifts.

During the nine-quarter period between Q3 2007 and Q4 2009, the industry's NCO rate for CRE loans rose exponentially, from 0.16% to 3.26%. At the end of 2015, the rate of NCOs on CRE loans had returned to near zero – below pre-crisis levels.

It is quite a different story when compared to the energy sector.

By incorporating information about current conditions, perhaps as a factor within a model or as a qualitative adjustment to a cycle-neutral rating, an institution will be better positioned to understand the impact of the prevailing credit cycle on its loan portfolio in order to improve its estimate of expected credit losses.

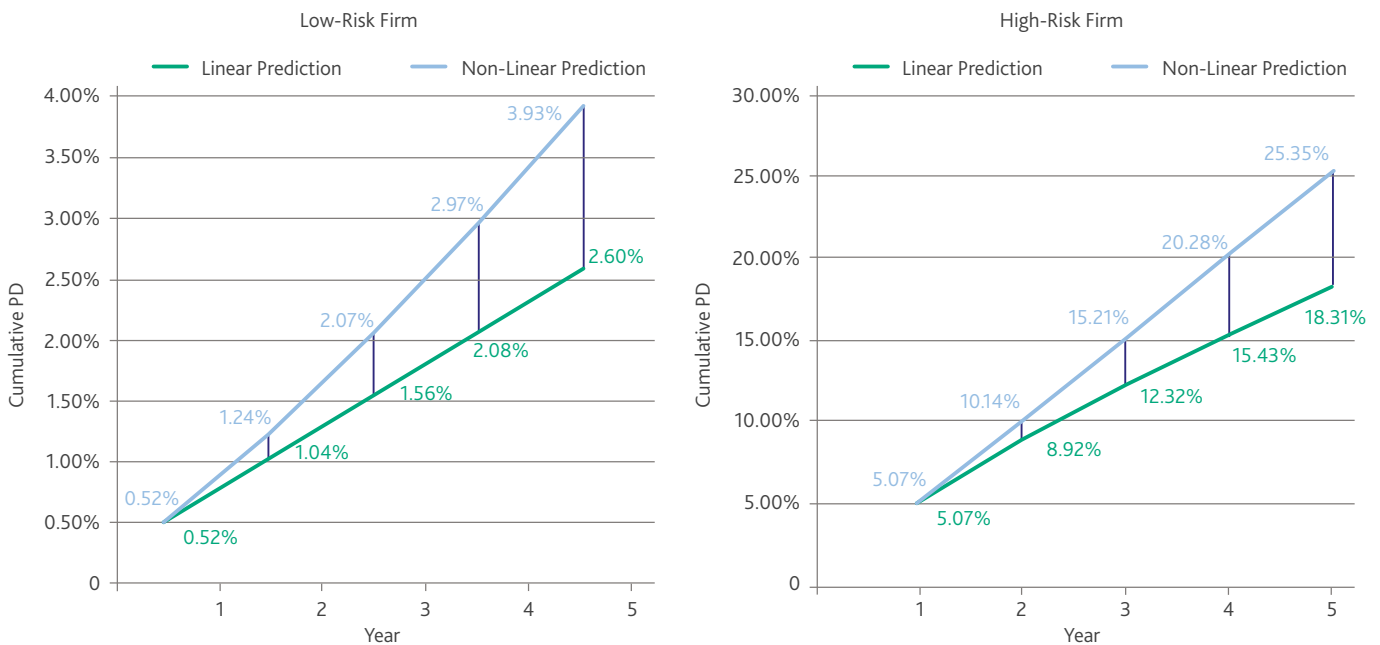
8 Crude Oil WTI (NYMEX); NASDAQ.

## Predicting the Future

In parallel with the actions of the accounting boards to rectify problems that arose during the financial crisis, the Federal Reserve and other banking agencies were making waves of their own. The accounting boards and banking agencies sought to incorporate a more forward-looking view of credit risk, but they focused on

information relevant to assessing the collectability of contractual cash flows, including information about past events, current conditions, and reasonable and supportable forecasts. Once the forecast and its impact on the portfolio can no longer be reliably estimated, CECL will allow an entity to revert to historical credit loss experience for future periods.

Figure 8 Term structure of default risk for a low-risk firm and a high-risk firm



different measures. Whereas bank supervisors focused on low-probability, high-impact events that could strain a firm's capital adequacy, the FASB and IASB dedicated their efforts on accounting for "reasonable and supportable" forecasts under more probable scenarios. One way to look at it would be that the allowance serves as a cushion for "expected" credit losses, and capital serves to absorb tail events, or "unexpected" credit losses.

Without a forward-looking component in the estimation of loss forecasting, reserves are inherently pro-cyclical. Banks add to the allowance during periods of stress, usually when access to financing is needed most, and they release reserves during periods of expansion, when many businesses and individuals can meet their financing needs with operating cash flow or discretionary income. If implemented properly, CECL should enable institutions to add to reserves when times are good, in anticipation of a shift in the cycle, and to begin to release reserves when it appears the worst is behind them, to help facilitate growth.

A forward-looking view requires an ability to predict the future. The proposed update will require an entity to consider available

It is worth reiterating that the practical interpretation will be different across institutions. What will be expected of a community bank is not the same as what will be expected of an institution that is subject to the Dodd-Frank Act Stress Tests (DFAST). Institutions that are already translating macroeconomic scenarios into a granular forecast of credit losses are well-positioned to incorporate reasonable and supportable forecasts into the allowance. Community banks will likely apply a broader and more judgmental approach to deriving forecasts.

### Extending Measurement Across the Life of the Loan

Most loans issued by banks do not mature within a year of origination. However, many institutions set aside an allowance for a year's worth of charge-offs. Under CECL, a life-of-the-loan forecast of credit losses will be recorded at origination, thereby mandating reserves be set aside when a loan is made and maintained throughout its contractual life. What's more, the new standard suggests that it is inappropriate to simply "gross-up" annual measures. Figure 8 illustrates the difference between a

Figure 9 Suggested action items for bank management



Source: Moody's Analytics

term structure of default risk calculated on a purely linear basis and one calculated on an empirically-derived non-linear basis.

The low-risk firm has a one-year PD of 0.52%. Assuming a five-year maturity, the cumulative default risk is nearly 4% when modeled empirically.<sup>9</sup> That equates to nearly an eightfold increase over a five-year period. When the term structure of default risk is calculated by simply multiplying the one-year measure by the number of years (i.e., linear rather than exponential (0.52% x 5)), the cumulative default risk is 2.60%, which is considerably less than 3.93%. The opposite is the case with the high-risk firm, which has a 5.07% one-year PD. On a linear basis, the five-year cumulative default risk is more than 25%; however, on an empirical basis, the probability of default over five years is only about 18%. These two examples highlight the reality that the term structure for low-risk firms is increasing (mathematically, the intercept coefficient is positive), whereas for high-risk firms, the term structure of PD is decreasing. This behavior follows a somewhat mean-reverting pattern.

To summarize, with many institutions establishing an allowance equal to an estimate of NCOs over a one-year horizon, the life-of-loan requirement introduces complexity beyond the capabilities most institutions currently possess. In our meetings with FASB officials, we were able to confirm that CECL has no mandate for modeling and leaves questions of methodology to individual banks. Nonetheless, many of the objections to date are focused on implementation. Bankers fear that regulators and auditors will expect them to use the same tools and methodologies used by larger banks, which is something they cannot afford to do.

### Early Preparation

For jurisdictions under IFRS 9, the implementation deadline is set firmly for January 2018. FASB's CECL standard is slated for release by June 2016, with implementation required by January 2020 for SEC filers and January 2021 for all others. Given the significance of the changes, financial institutions would benefit from a proactive approach to develop the organizational capabilities necessary to satisfy the new impairment requirements. Figure 9 highlights the key actions management should consider to get started.

- » **Manage Expectations:** Organizations will face questions from a variety of stakeholders, including employees, auditors, regulators, and investors. It is critical for management to understand the new guidance and be able to clearly communicate to stakeholders how the organization may be affected financially and non-financially. Communicating early and often regarding the potential impact, the firm's implementation plan, and progress in the firm's preparations will be essential to managing expectations.
- » **Establish Program Governance:** Implementation of the new impairment accounting rules will require resources and coordination from across the organization, including lending, risk, finance, and IT. A steering committee should be developed with ultimate responsibility for implementation of the new framework. The committee can form task groups to focus on specific workstreams such as modeling, data infrastructure, and reporting.
- » **Perform Financial Impact Analysis:** Management will not know the exact impact of the new standards on the organization's financial statements until the new framework has been implemented at an enterprise level. However, pilot tests on segments of the portfolio using simplifying assumptions (i.e., flat LGD term structure) can help management identify a range of possible outcomes. These results can be socialized with peer institutions and compared to public impact studies.
- » **Perform Gap Analysis:** Management must identify what in its "toolbox" will help the organization meet the requirements. What approaches meet basic requirements? What data, models, and technology can the bank repurpose, and who owns these within the organization?
- » **Develop an Initial Roadmap:** The gap analysis will identify relevant existing tools, as well as areas where the organization must develop new capabilities. These findings will inform the organization's roadmap for implementation. The roadmap should identify the key objectives, major milestones, and broad timelines spanning preparation through implementation. The roadmap sets the development priorities for the program and

9 Moody's Analytics RiskCalc v4.0 Corporate Model.

Figure 10 Core capabilities required for new impairment calculations



Source: Moody's Analytics

serves as the foundation for a more detailed project plan. Major milestones typically include methodology design, software implementation, and impact analysis (i.e., parallel run). As part of the roadmap, the organization should determine whether to seek an accelerated path to achieve early adoption. Even the most advanced institutions may need at least 18 months to go live with a new impairment framework.

### Core Capabilities Required

Figure 10 summarizes the core set of capabilities institutions will need to estimate credit impairment under the new standard. The analytical rigor demanded in each category may vary widely across institutions and portfolio segments.

Expected credit losses must represent an unbiased estimate using reasonable and supportable information about past events and current conditions, as well as forecasts of future economic conditions. To account for forecasts of future economic conditions, institutions will need to source economic scenarios internally or by third parties. They must determine which variables to forecast, the number of possible outcomes to consider, the likelihood of the possible outcomes, and the source(s) of the economic forecast.

Large financial institutions have developed economic forecasting capabilities for stress testing purposes,<sup>10</sup> but economic forecasting is likely to represent a capability gap for most financial institutions.

**Credit data** encompasses the current information required to estimate credit losses for each of the exposures in the portfolio (balances, commitment, PD/LGD profile, cash flow profile, etc.). In addition, it includes the credit research data required to develop loss estimation models that are trained using historical data. Some institutions will need to develop the capability to integrate all the loan accounting and risk profile data into a single system for impairment calculations. In addition, firms will need to aggregate historical credit risk data from internal and external sources to facilitate credit risk model development.

**Credit modeling** represents the analytical tools required to estimate probability of default, loss severity, exposure at default, and/or expected losses for the various segments of the portfolio. Some institutions have developed sophisticated model development and validation functions to support internal model development. Others have outsourced some of these capabilities, leveraging the data or expertise of third parties for specific asset

<sup>10</sup> For example, CCAR banks in the US are required to generate firm-specific stressed loss forecasts in addition to the regulatory scenarios.

classes. Regardless of the source of these tools, the models must be powerful, forward-looking estimates of credit risk throughout the life of the exposure. Some institutions have developed credit risk models for Basel and internal risk management purposes. In most cases these will need to be modified to extend the forecasting horizon (most current models estimate credit risk over a one-year horizon) and to reflect current and forward-looking information.

Institutions must also develop the capability to perform sensitivity analysis. In the context of impairment calculation, this refers to the ability to test the sensitivity of the impairment estimates to model assumptions. Sensitivity analysis could take place in various forms, including changing the scenarios or the probability assigned to each scenario, or using alternative credit risk models to estimate credit losses. This could be a very manual process, or it could be carried out in a controlled environment with auditability, reporting, and archiving features. Ultimately, the idea is to better inform management of the uncertainty around the impairment estimates.

Workflow and overlay management and analysis and reporting focus on the operating environment used for impairment calculations. Because impairment values are used directly in an organization's financial statements, they require strong governance and controls. Unlike risk parameter estimates used for regulatory reporting, risk estimates used for impairment calculation will fall directly under the purview of auditors. The calculation environment will ideally support workflow and overlay management to define user roles and track overrides to model estimates. The system will need to integrate the scenarios, data, models, and provision calculations in a way that facilitates user interactivity and auditability.

In many jurisdictions, reporting requirements for regulated financial institutions are being adapted to reflect changes in the impairment framework. Institutions would be required to explain the drivers of the changes in provisions between reporting periods. For example, banks may need to separate changes due to new originations, asset disposal, change in the risk of existing loans, and changes due to updates in the estimation methodology. Furthermore, management may have its own preferences regarding the analysis and reports that will be disseminated throughout the organization. Accordingly, institutions may need to enhance reporting capabilities to address new and evolving reporting requirements.

Large institutions have developed robust data repositories and reporting infrastructures to address Basel and stress testing requirements, but enhanced reporting will pose a particular challenge to small and mid-size institutions. Technical footprint, performance, flexibility, and compatibility with existing systems should be carefully considered when investing in a new infrastructure solution.

### Conclusion

While we await the release of the final standard, we interpret CECL to be consistent across institutions. However, implementation of the rules will be unique to the size, complexity, and geographical footprint of the institution. One size certainly will not fit all. The capabilities required to be compliant will differ throughout the industry, but the mandate to provide stakeholders with actionable information about an institution's credit risk will not.

For all its shortcomings, CECL should bring about a more comprehensive view and a disciplined approach for quantifying the expected credit losses inherent in an institution's financial instruments.

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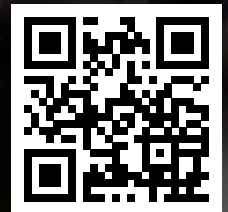
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